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(54) Title: **DESULPHURISATION**

(57) Abstract: Propane and/or butanes are separated from a hydrocarbon feedstock contaminated with alkyl mercaptans by fractional distillation at such a pressure that the separated overheads stream containing said propane and/or butanes is at a temperature in the range 50 to 100°C. Sufficient oxygen is introduced into the hydrocarbon feedstock to oxidise the mercaptans therein and the resultant mixture is subjected to the fractional distillation in a column including at least one bed of a catalyst capable, under the prevailing conditions, of oxidising the mercaptans to higher boiling point sulphur compounds. These higher boiling point sulphur compounds are separated as part of the liquid phase from the distillation.



WO 2004/044096 A1